

## ABSTRACT

Disclosed here is a wireless LAN system employed for quick and accurate auto gain controlling with no work load to be applied to its baseband processing block. When the wireless LAN system gets ready to receive a signal, the gain control circuit switches between the receiving antennas alternately. The gain control circuit, when receiving a signal over a predetermined receiving sensitivity, sets gain setting value time divisional data according to the level of the received signal measured by the first measurement circuit to roughly control the gain to be set in the LNA and the gain to be set in the two programmable gain amplifiers provided in the front steps of the LPF/PGA circuits. The gain control circuit then cancels the DC offset while the second measurement circuit measures the signal level. The gain control circuit then sets the gain setting value time divisional data according to the measured signal level, then sets a minute gain in the programmable gain amplifiers provided in the front steps of the LPF/PGA circuits respectively, thereby completing the auto gain controlling.